

## **REMARKS**

### **Status of the Claims**

Claims 1-7 are currently pending in the application. Claims 1-8 stand rejected. Claims 1 and 5 have been amended as set forth herein. Claim 8 has been cancelled herein. All cancellations and amendments are made without prejudice or disclaimer. No new matter has been added by way of the present amendments. Specifically, the amendments to claims 1 and 5 are supported throughout the specification, for instance, at page 3, lines 4-10 and line 16. Reconsideration is respectfully requested.

### **Rejections Under 35 U.S.C. § 112, First Paragraph**

Claim 8 stands rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. (*See*, Office Action of November 14, 2005, at page 2, hereinafter referred to as “Office Action”). Claim 8 has been cancelled, thus obviating the rejection.

### **Rejections Under 35 U.S.C. § 112, Second Paragraph**

Claim 5 stands rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. (*See*, Office Action, at page 2). Applicants traverse the rejection as set forth herein.

The Examiner states that there is insufficient antecedent basis for the term “obtainable” in claim 5. The Examiner cites to *Ex Parte Tanksley* for the contention that one “would have to produce a polymer using all possible parameters within the scope of the claim, and then extensively analyze each product to determine if this polymer was obtainable by a process within

the scope of the claimed process.” (*Id.* at page 3). Although the Examiner overstates the holding of *Ex Parte Tanksley*, and although Applicants disagree that claim 5 is indefinite, to expedite prosecution, claim 5 has been amended to replace the term “obtainable” with the term “obtained.” This amendment is not intended to in any way narrow the scope of claim 5.

Reconsideration and withdrawal of the indefiniteness rejection of claim 5 are respectfully requested.

#### **Rejections Under 35 U.S.C. §§ 102(e) and 103(a)**

Claim 5 stand rejected under 35 U.S.C. § 102(e) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Tsuchiya et al., U.S. Patent No. 6,797,656 (hereinafter referred to as “Tsuchiya et al.”). (*See, Office Action*, at page 7). (We note that the corresponding EP application, EP 1142696, published in English on October 10, 2001. See Information Disclosure Statement submitted herewith). Applicants traverse the rejection as set forth herein.

The Examiner states that the recited product of claim 5 is “substantially the same as the water-absorbent resin” disclosed by Tsuchiya et al., “even though obtained by a different process.” However, the Examiner’s standard for rejection under 35 U.S.C. § 102(e) and/or 35 U.S.C. § 103(a) is improper. The standard is not “substantially the same as.” According to the U.S. Code, Title 35, sections 102 and 103, the cited reference must disclose each and every claim limitation as recited by the pending claim.

Furthermore, it is uncertain how claim 5 could be anticipated by Tsuchiya et al. but not any of claims 1-4, from which claim 5 depends. According to 37 C.F.R. § 1.175(c), a dependent

claim must necessarily include each and every limitation recited by the independent claim from which it depends and include an additional limitation not recited by the independent claim from which it depends. Thus, if claims 1-4 are not anticipated by Tsuchiya et al., then obviously claim 5 also cannot be anticipated by Tsuchiya et al. Thus, the Examiner's rejection under 35 U.S.C. § 102(e) is improper.

M.P.E.P. § 706.02(j) sets forth the standard for establishing a *prima facie* case of obviousness as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The Examiner has not established a *prima facie* case of obviousness because Tsuchiya et al. do not disclose each and every limitation recited by claim 5. Claim 5 recites, in part, "adding a reducing agent or an oxidizing agent thereto in an amount of 0.001 to 6 parts by weight, based on 100 parts by weight of the  $\alpha,\beta$ -unsaturated carboxylic acid before initiation of drying and/or during drying of a gelated product containing a water-absorbent resin obtained by polymerization." Tsuchiya et al. disclose reducing agents and oxidizing agents used in the process of polymerizing water-absorbing polymers as polymerization initiators. In contrast, the present invention clearly recites reducing agents and oxidizing agents applied to the water-absorbing polymers after the polymer has been created. Furthermore, the reducing agents and

oxidizing agents disclosed by Tsuchiya et al. do not suppress coloration after polymerization has been completed, as recited in the present claims. For at least this reason, the presently claimed invention is not *prima facie* obvious in light of the disclosure of Tsuchiya et al.

Additionally, one would not be motivated to arrive at the present invention based on Tsuchiya et al. because Tsuchiya et al. use the reducing and oxidizing agents for completely different purposes as compared to the present invention. Tsuchiya et al. do not disclose the colorization-reducing properties of the reducing and oxidizing agents of the present invention. Thus, there is no suggestion or motivation in the references themselves directing one of ordinary skill in the art to use the reducing agents and/or oxidizing agents to inhibit colorization. The presently claimed invention is additionally not *prima facie* obvious in light of Tsuchiya et al. because of the lack of motivation from within the disclosure of Tsuchiya et al.

Reconsideration and withdrawal of the anticipation and obviousness rejection of claim 5 are respectfully requested.

#### **Rejections Under 35 U.S.C. § 103(a)**

Claims 1-4 and 6-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsuchiya et al. in view of Hosokawa et al., EP 0257951 A2 (hereinafter referred to as "Hosokawa et al."). (See, Office Action, at page 4). Applicants traverse the rejection as hereinafter set forth.

The Examiner states that Tsuchiya et al. disclose "a water-absorbing composite, containing water-absorbing polymer particles immobilized on a fibrous substrate," and polymerization initiators should be somewhat water-soluble redox systems combining an

oxidizing radical generator and a reducing agent.” However, as already commented on, above, the disclosure of Tsuchiya et al. is inapposite because Tsuchiya et al. use the reducing and oxidizing agents as polymerization initiators, and do not add these agents after polymerization as colorizing inhibitors, as presently claimed.

The Examiner states that Hosokawa et al. disclose a disposable diaper comprising an absorbent layer which comprises “a polymeric absorbent” which is a resin containing “from 0.01 to 10% by weight of metal chelating agent” which may include EDTA, etc. (*Id.* at page 6). However, the motivation in Hosokawa et al. to add a metal chelating agent is to create an absorbent polymer having no reduction in the water absorbing performance and having an excellent stability of swollen gel over time. Thus, Hosokawa et al. fail to disclose the use of a metal chelating agent to suppress colorization, as recited in the present claims.

One of ordinary skill in the art would not be motivated to combine the teachings of Tsuchiya et al., wherein reducing and oxidizing agents are used to initiate polymerization of water-absorbent polymers, with the teachings of Hosokawa et al., wherein a chelating agent is used to increase water absorbency and increase shelf life of water-absorbent polymers found in diapers, to arrive at the presently claimed invention wherein the reducing and oxidizing agents are added after polymerization and chelating agents are added to reduce colorization of a water-absorbent resin over time.

If one of ordinary skill in the art were to combine the two disclosures of the cited references, then the end result would be nothing like the present invention. That is, one of ordinary skill in the art could not possibly derive the presently claimed invention even when the disclosures of the two references are combined because the two disclosures, even combined, do

not disclose each and every element of the claimed invention, and because the combined disclosures would actually teach away from the presently claimed invention in that the elements disclosed by the two references are used for purposes completely foreign to the goal of the presently claimed invention. It also follows, then, that one of ordinary skill in the art could not expect to be successful in achieving the results of the presently claimed invention, even upon combination of the two references, for the same reasons. Thus, there is also a lack of a reasonable expectation of success.

Furthermore, the disclosure of the present invention reveals unexpectedly superior results. That is, Comparative Example 2, for instance, reveals that where a reducing agent is added to a water-absorbent resin, the Yellow Index is remarkably increased from 7.7 to 24.0. (*See, Specification*, at page 32, lines 1-18 and Table 2). Surprisingly, the results are less striking when compared with the results of Comparative Example 1 having nothing added and whose Yellow Index only rose from 10.4 to 21.1. (*Id.*). Chelating agent alone, as shown in Comparative Example 3, only yielded a Yellow Index change of from 9.7 to 13.3. (*Id.*). Thus, in considering at least the Comparative Examples 1-3, it is clear that the advantages of the presently claimed invention are more than merely additive, as one of skill in the art may expect.

In fact, one of ordinary skill in the art would expect that addition of a reducing agent in addition to the chelating agent would decrease the change in Yellow Index, as revealed by the Comparative Example having only chelating agent added in comparison to the control sample having nothing added. Remarkably, the exact opposite was observed, as disclosed by the present invention. (*See, Specification*, at Table 2 and Comparative Examples at pages 25-32, and page 10, lines 1-12). Thus, the results of tests performed on the presently claimed invention were

unexpectedly superior than one of ordinary skill in the art would predict from merely adding the combined effects of the reducing/oxidizing agent and the chelating agent.

Thus, claims 1-4 and 6-8 are not obvious in light of either Tsuchiya et al. or Hosokawa et al., or in light of these references in combination, because the references do not disclose each and every limitation recited by the presently claimed invention, lack a motivation to combine the references because such a combination could not possibly yield the present invention, lack a reasonable expectation of success even upon combination of the two references, and do not disclose the unexpected results achieved by the presently claimed invention.

Reconsideration and withdrawal of the obviousness rejection of claims 1-4 and 6-8 are respectfully requested.

If the Examiner has any questions or comments, please contact Thomas J. Siepmann, Ph.D., Registration No 57,374 at the offices of Birch, Stewart, Kolasch & Birch, LLP.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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